

Attorney's Docket: 2000DE439

Serial No.: 10/035,522

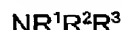
Art Unit 11/09/01

Response to Final Office Action of 10/28/2003

This listing of claims will replace all prior versions, and listings of claims in the application:

1.(Currently Amended) A fuel oil composition comprising a middle distillate having a sulfur content of up to 0.05% by weight and reaction products of

- A) mono- or dicarboxylic acids of 6 to 50 carbon atoms and
- B) primary, secondary or tertiary amines of the formula



where R^1 is a branched alkyl of 3 to 18 carbon atoms and R^2 and R^3 are independently hydrogen, R^1 or an alkyl of 1-12 carbon atoms, wherein said amines have at least one ~~C_3 - C_{18} -branched alkyl groups~~ C_3 - C_8 branched alkyl and wherein each of said branched alkyl has a secondary or a tertiary carbon atom or where the nitrogen atom is bonded to a secondary or tertiary carbon atom.

2.(Original) A fuel oil composition as claimed in claim 1, wherein A is a mono- or dicarboxylic acid of 12 to 22 carbon atoms.

3.(Previously Presented) A fuel oil composition as claimed in claim 1, wherein A comprises such carboxylic acids as contain one or more double bonds.

4.(Original) A fuel oil composition as claimed in claim 1, wherein R^1 is branched C_4 - C_{12} -alkyl.

5.(Original) A fuel oil composition as claimed in claim 1, wherein R^2 and/or R^3 is or are branched C_4 - C_{12} -alkyl.

6.(Original) A fuel oil composition as claimed in claim 1, wherein R^2 and/or R^3 is or are hydrogen, methyl, ethyl, propyl or butyl.

Claim 7 and Claim 8.(Delete)

Attorney's Docket: 2000DE439Serial No.: 10/035,522Art Unit 11/09/01Response to Final Office Action of 10/28/2003

9.(Previously Presented) A fuel oil composition as claimed in claim 1, wherein said amines are selected from the group consisting of isopropylamine, isobutylamine, 2-aminobutane, 3-methylbutylamine, 2-amylamine, 3-amylamine, tert-amylamine, 2-ethylhexylamine, isononylamine, di-sec-butylamine, di-2-amylamine, di-3-amylamine, di-tert-amylamine, di(2-ethylhexyl)amine, diisononylamine, and mixtures thereof.

10.(Currently Amended) A method for enhancing the lubricity of a middle distillate having a sulfur content of up to 0.05% by weight, said method comprising adding to said middle distillate an additive comprising a reaction product of

- A) mono- or dicarboxylic acids of 6 to 50 carbon atoms and
- B) primary, secondary or tertiary amines of the formula



where R^1 is branched alkyl of 3 to 18 carbon atoms and R^2 and R^3 are independently hydrogen, R^1 or alkyl of 1-12 carbon atoms, wherein said amines have at least ~~C_3 - C_{18} -branched alkyl groups~~ one C_3 - C_8 branched alkyl and wherein each of said branched alkyl has a secondary or a tertiary carbon atom or where the nitrogen atom is bonded to a secondary or tertiary carbon atom.

11.(Currently Amended) An additive for enhancing the lubricity of middle distillates having a sulfur content of up to 0.05% by weight, comprising reaction products of

- A) mono- or dicarboxylic acids of 6 to 50 carbon atoms and
- B) primary, secondary or tertiary amines of the formula



where R^1 is a branched alkyl of 3 to 18 carbon atoms and R^2 and R^3 are independently hydrogen, R^1 or alkyl of 1-12 carbon atoms, wherein said amines have at least ~~C_3 - C_{18} -branched alkyl~~ one C_3 - C_8 branched alkyl and wherein each of said branched alkyl has a secondary or a tertiary carbon atom or where the nitrogen atom is bonded to a secondary or tertiary carbon atom.

Attorney's Docket: 2000DE439Serial No.: 10/035,522Art Unit 11/09/01Response to Final Office Action of 10/28/2003

12.(Previously Presented) The method of claim 10 wherein the monocarboxylic acids have an iodine number of at least 40 gI/100g.

13.(Previously Presented) The method of claim 10 wherein said dicarboxylic acids are selected from the group consisting of dimer fatty acids, alkylsuccinic acids, alkenylsuccinic acids, wherein said dicarboxylic acids have a C₈-C₅₀ alkyl radical.

14.(Previously Presented) The fuel oil composition of claim 1, wherein R¹ is selected from the group consisting of isopropyl, isobutyl, tert-butyl, 3-methylbutyl, amyl, 2-ethylhexyl, isomers of isononyl, and mixtures thereof.

15.(Previously Presented) The fuel oil composition of claim 1, wherein R¹ is selected from the group consisting of 2-aminobutane, 2-aminopentane, 3-aminopentane, 2-aminohexane, 3-aminohexane, 2-aminoheptane, 2-amino-6-methylheptane and 2-amino-5-methylhexane, and mixtures thereof.

16.(Previously Presented) The fuel oil composition of claim 1, wherein A further comprises resin acids.

17.(Currently Amended) A fuel oil composition comprising a middle distillate having a sulfur content of up to 0.05% by weight and reaction products of

A) a fatty acid selected from the group consisting of lauric acid, tridecanoic acid, myristic acid, pentadecanoic acid, palmitic acid, margaric acid, stearic acid, isostearic acid, arachidic acid, behenic acid, oleic acid, erucic acid, palmitoleic acid, myristoleic acid, linoleic acid, linolenic acid, elaeosteric acid, arachidonic acid, ricinoleic acid, coconut oil fatty acid, peanut oil fatty acid, fish oil fatty acid, linseed oil fatty acid, palm oil fatty acid, rapeseed oil fatty acid, ricinenic oil fatty acid, castor oil fatty acid, colza oil fatty acid, soybean oil fatty acid, sunflower oil fatty acid, tall oil fatty acid, and mixtures thereof, and

Attorney's Docket: 2000DE439Serial No.: 10/035,522Art Unit: 11/09/01Response to Final Office Action of 10/28/2003

B) an amine selected from the group consisting of di(2-ethylhexyl)amine, 2-aminobutane, 2-ethylhexylamine, [[diamylamine,]] di(sec-butylamine), [[N,N-dimethylbutylamine,]] isopropylamine, isobutylamine, 2-aminobutane, 3-methylbutylamine, 2-amylamine, 3-amylamine, tert-amylamine, 2-ethylhexylamine, isononylamine, di-sec-butylamine, di-2-amylamine, di-3-amylamine, di-tert-amylamine, diisononylamine and mixtures thereof.

18.(Currently Amended) The fuel oil composition of claim 17, wherein the middle distillate comprises reaction products of

A) a tall oil fatty acid, and

B) an amine selected from the group consisting of di(2-ethylhexyl)amine, 2-aminobutane, 2-ethylhexylamine, [[diamylamine,]] di(sec-butylamine), [[N,N-dimethylbutylamine,]] and mixtures thereof.